

### **REMARKS**

Applicants acknowledge and appreciate the Examiner's comments on claim status. Claims 1, 4-5, 7, 10-16, and 23 are pending, with claim 1 being independent. Claims 1 and 4 have been amended, and claim 22 has been cancelled by this Amendment D. Reconsideration and allowance of this application are requested in view of the amendments and following remarks.

### **CLAIM REJECTIONS - 35 U.S.C. §112**

Claims 1, 4-5, 7, 10-16, and 23 were rejected under U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner stated:

Recitations, "rapidly" and "rapid" render Claim 1 vague and unclear because this term, in and of itself, does not adequately delineate its metes and bounds. Recitations "rapidly" and "rapid" are relative terms and mere perception of a person looking at them. These terms are subjective and therefore, do not establish any metes and bounds to distinguish those term from another. Applicants should clearly define metes and bounds for the terms "rapidly" and "rapid" in appropriate scientific units and definitions.

Applicants respectfully disagree. Applicants have continuously asserted, as shown, for example, in the preferred ranges cited on page 9 of the present application as originally filed, that concentrations of the DPA-Ca affect the determination for rapid decontamination. Applicants' claims are directed to "rapid decontamination" (e.g., specification at page 6, line 13) of a contaminated area (e.g., specification at page 4, line 17) particularly for applications related to military operations and the like (e.g., specification at page 6, line 19 to page 7, line 15). Rapid

decontamination depends on the criteria set for the “functional cleanup of a contaminated area” (e.g., specification at page 6, line 12). Applicants cited numerous examples of how rapid decontamination may vary, such that “germination time periods include any appropriate time, such as within 24 hours, less than 4 hours, less than 1 hour, less than fifteen minutes or other time periods that promotes usefulness of areas or articles for their intended purpose” (e.g., specification at page 6, lines 15-18). Applicants have amended claim 1 to encompass specific ranges of dipicolinic acid that further defines the term “rapid”.

#### **CLAIM REJECTIONS - 35 U.S.C. §102**

Claims 1, 10 and 16 were rejected under 35 U.S.C. §102 (e) as being anticipated by Baugh et al. (U.S. Patent 6,656,919). This rejection is obviated by the present amendment to claim 1 incorporating the limitations of the now cancelled dependent claim 22.

#### **CLAIM REJECTIONS - 35 U.S.C. §103**

Claims 1, 4-5, 7, 10-16 and 23 were rejected under 35 U.S.C. §103 (a) as being obvious over Baugh et al. (U.S. Patent 6,656,919) in view of Paidhungat et al. (Journal of Bacteriology 2000, Volume 182, Pages 2513-2519) and Baker, et al. (U.S. Patent 6,506,803) and further being obvious over Clouston (U.S. Patent 3,617,178) in view of Paidhungat et al. (Journal of Bacteriology 2000, Volume 182, Pages 2513-2519) and Baker, et al. (U.S. Patent 6,506,803), as previously presented. Additionally the Examiner stated that Figure 4 at page 2517 of Paidhungat et al. clearly shows that a combination of 60 mM each of dipicolinic acid and  $\text{Ca}^{+2}$  gives maximum spore germination.

Applicants respectfully disagree. Applicants incorporate herein the arguments presented in the previously submitted Amendment C. Applicants' claims are directed to "rapid decontamination" (e.g., specification at page 6, line 13) of a contaminated area (e.g., specification at page 4, line 17). The Paidhungat et al. article does not address rapid decontamination. Instead, Paidhungat focuses on a study to investigate the role of receptor proteins in the spores (*see* Paidhungat et al. at page 2513, column 2, lines 6-16), with the use of dipicolinic acid and calcium ions which have been known to be inherently present in spores populations. As such, Paidhungat et al. does not overcome the deficiencies of either Baugh et al. or Clouston, as the Paidhungat et al. article does not provide a basis for selection of dipicolinic acid and calcium ions over other types of germinants listed in the references. In addition to Baugh et al.'s disclosure of "[a]ny chemical that induces activation-germination of bacterial endospores can be utilized" (Baugh et al. at col. 8, lns. 14-15) such as "glucose, adenosine, inosine, L-alanine, Calcium dipicolinate, various inorganic cations and anions, and complex bacterial media such as peptone, tryptone, and yeast extract" (Baugh et al. at col. 8, lns. 15-19), the method taught in Baugh et al. that uses any germinant that "induces germination in a high percentage of the spores and the germinating spores release dipicolinic acid which act as a additional germinant for any remaining spores" (Baugh et al. at col. 7, lns. 28-33) limits the time of germination to at least the germination rate resulting from the wide variety of disclosed germination chemicals of Baugh et al. There is no teaching in either reference that selection of specific germinant is desirable, nor is there a teaching in Baugh et al. that the specific concentrations of germinant are desirable. Accordingly, there is no teaching that would motivate one of ordinary skill in the art to vary either the type of germinant or the concentration of the germinant being used.

Appl. Serial No. 10/090,798  
Attorney Docket No. 83202

No fee is believed to be due. Please apply any other charges or credits to deposit account 50-0967.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'S. Boalick', written over a horizontal line.

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